

Everglades Construction Project

DESIGN AND CONSTRUCTION



South Florida Water Management District is the primary agency responsible for the land acquisition, design, construction, operation, and maintenance of the Everglades Construction Project. Known as "ECP," the project sets the cornerstone for the largest ecosystem restoration program in the history of Florida.

Six stormwater treatment areas, or STAs, are the key components of the project. These constructed wetlands use biological processes to reduce the level of phosphorous entering the Everglades. This effort has been recognized as the best approach for achieving interim water quality goals of Everglades restoration.

Frank R. Finch, P.E.

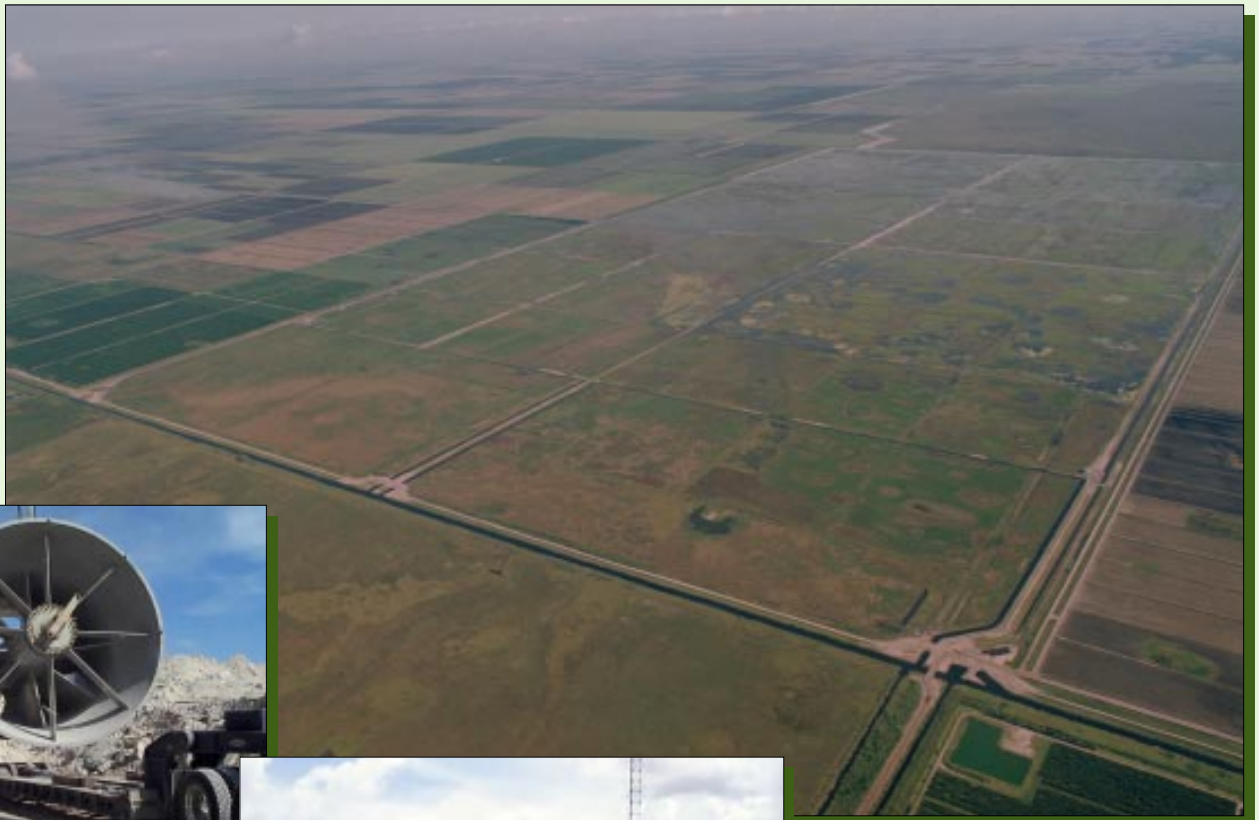
Executive Director

South Florida Water Management District

Joseph A. Schweigart, P.E., P.L.S.

Director, Everglades Construction Project

South Florida Water Management District



470 cfs pump for pump station

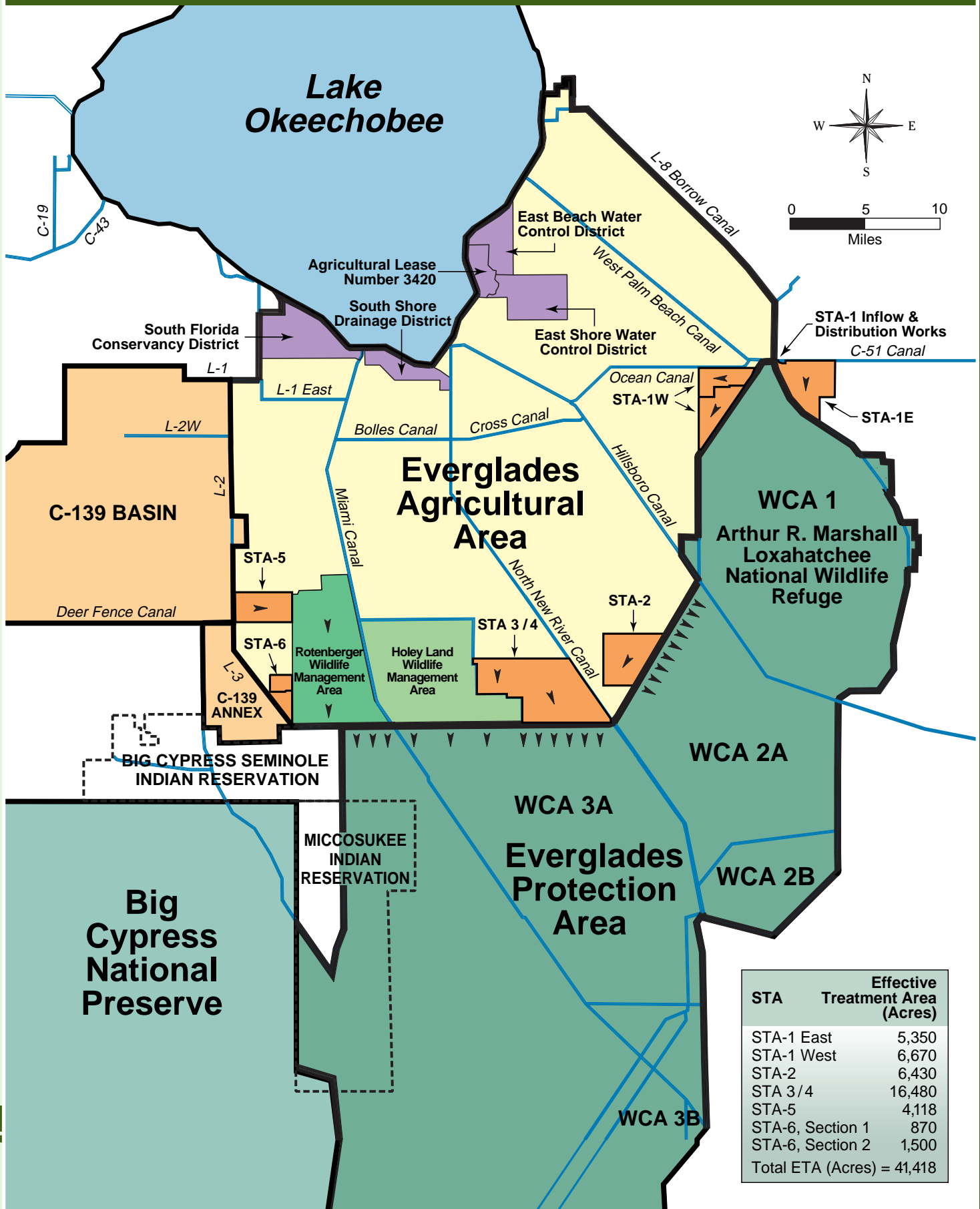


*G-335 pump station (STA 2), intake side,
near completion, (11/2000)*



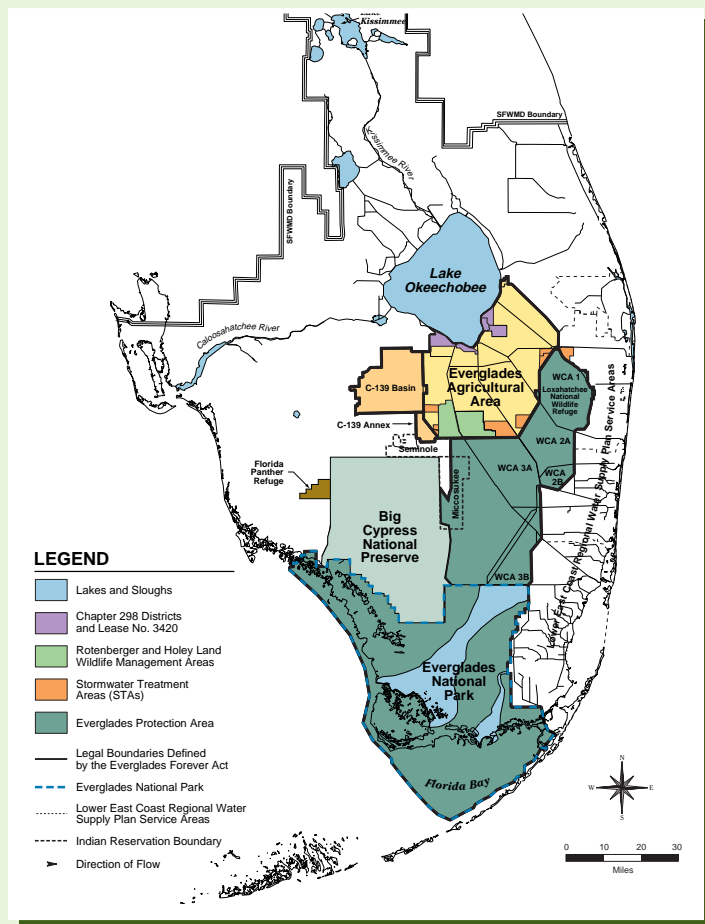
*G-335 pump station, intake side of super
structure wall*

Overview of Everglades Construction Projects



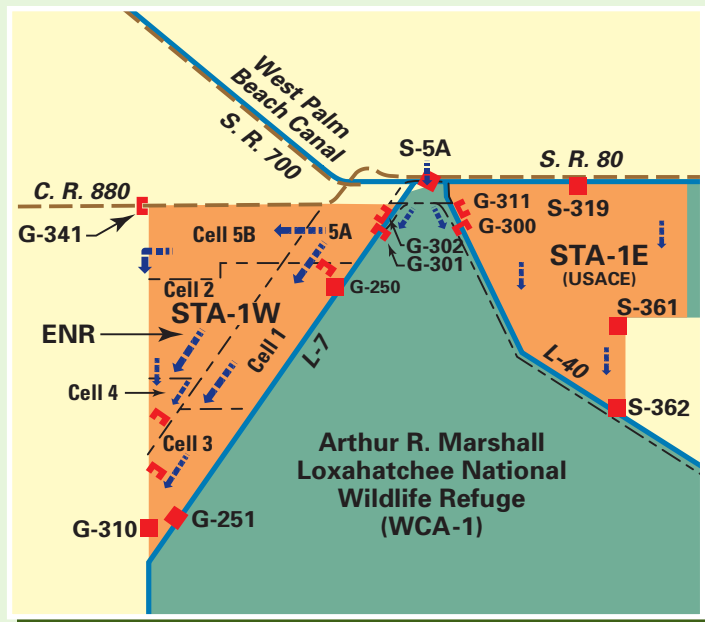
STA	Effective Treatment Area (Acres)
STA-1 East	5,350
STA-1 West	6,670
STA-2	6,430
STA 3/4	16,480
STA-5	4,118
STA-6, Section 1	870
STA-6, Section 2	1,500
Total ETA (Acres) = 41,418	

General Location Map



STA-2

STA-2 is located in southern Palm Beach County including and surrounding the Brown's Farm Wildlife Management Area. This project provides a total effective treatment area of 6,430 acres, serving the area tributary to pump station S-5A and S-6. Construction included approximately 28 miles of levees, remote controlled structures and pump station G-335. This stormwater treatment area will filter and discharge waters to Water Conservation Area-2A (WCA-2A).

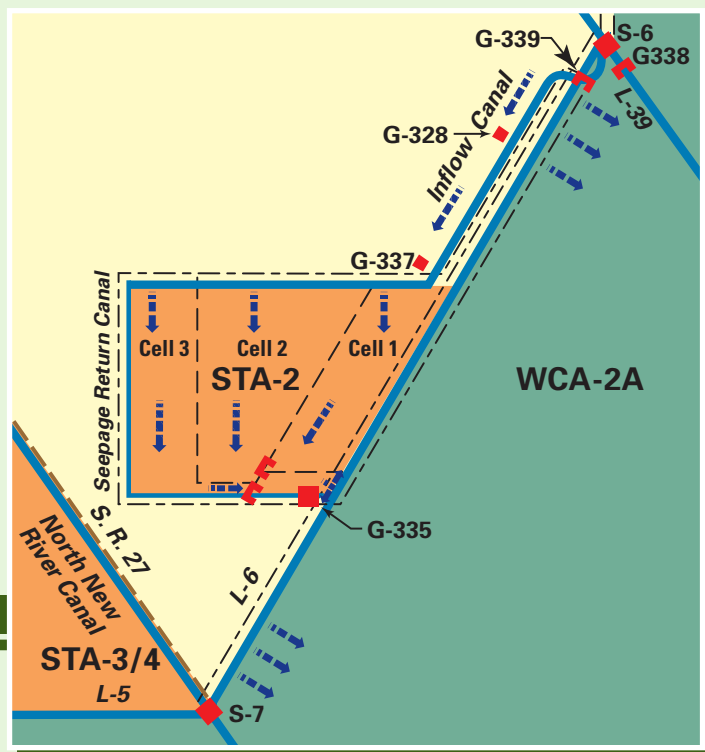


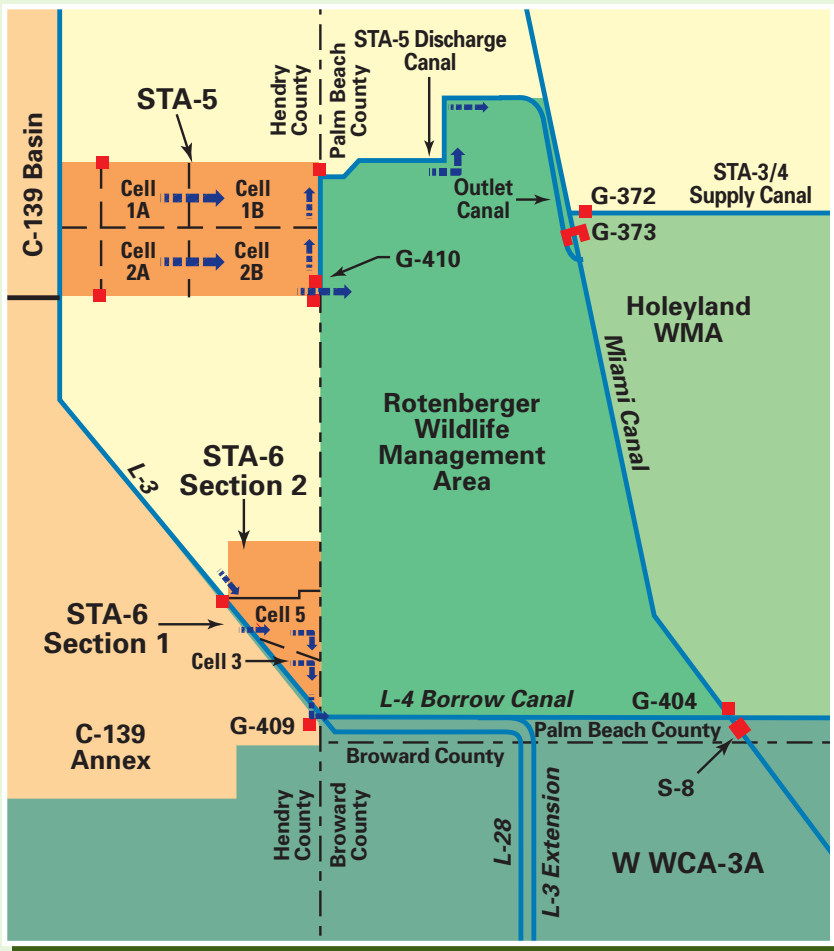
STA-1W

Located in Western Palm Beach County, STA-1 West was constructed to serve the area tributary to pump station S-5A. The construction consisted of 6,670 acres of effective treatment area, 14 miles of levees, concrete spillways, culverts and related ancillary facilities. STA-1 West includes the Everglades Nutrient Removal (ENR) project and will filter waters released to the Arthur R. Marshall Loxahatchee National Wildlife Refuge also known as Water Conservation Area-1 (WCA-1).

STA-1E

The U.S. Army Corps of Engineers (USACE) is responsible for the design and construction of STA 1E. STA 1E facilities include the inflow pump station, S-319, outflow pump station, S-362, inflow and discharge water control structures, seepage/inflow pump station, S-361, FPL transmission lines relocation and treatment cells totaling over 5,000 acres.





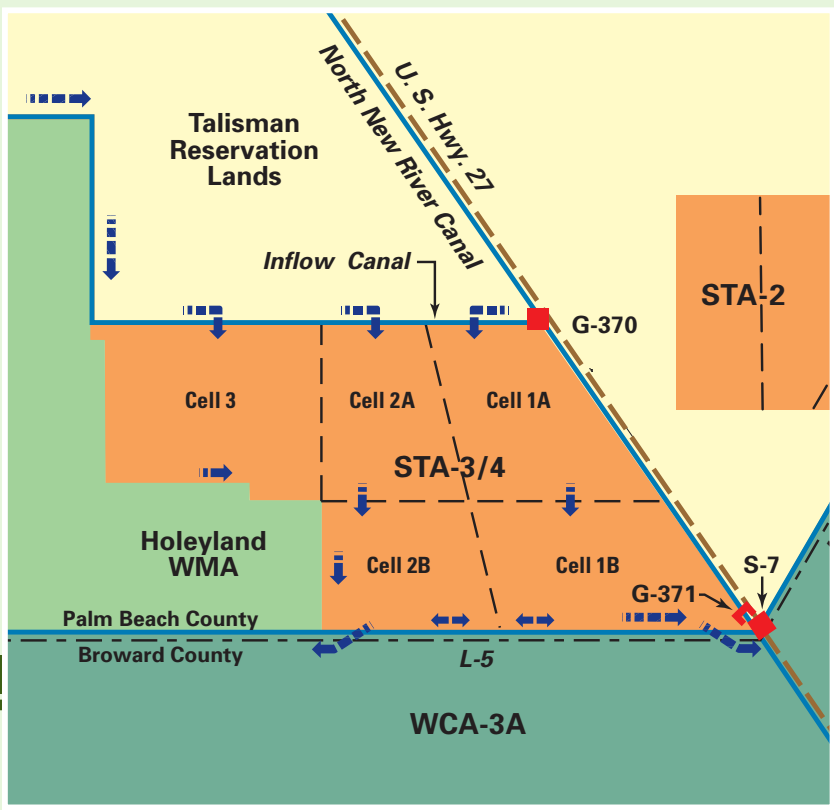
STA-5

STA-5, located in Hendry County, is bordered by the L-3 canal on the west and Rotenberger Wildlife Management Area immediately to the east. STA-5 is intended to improve the quality of water discharged from C-139 Basin to WCA-3A via pump station S-8 and to the Rotenberger Wildlife Management Area via pump station G-410. STA-5 consists of two parallel treatment cells that flow from west to east. Major components of this project include gravity control structures, 18 miles of canals and levees, concrete culverts with fixed weirs, modifications to the L-3 levee, seepage return/water supply pump stations and discharge/outlet canals.

STA-6

STA-6 Section 1 is located in southeastern Hendry County, south of STA-5 and immediately west of the Rotenberger Wildlife Management Area. It provides a total effective stormwater treatment area of 870 acres, with construction of various inflow and discharge structures, discharge canals and levees.








STA 6 Section 2 will involve the addition of 1,500 acres of effective treatment area to treat runoff from C-139 Annex. The improvements consists primarily of new inflow, outflow, exterior and perimeter levees, inflow structures and outflow structures, new access bridges and a seepage return pump.



STA-3/4

Stormwater Treatment Area-3/4 is located north of the Palm Beach County - Broward County line. It is bordered on the west by the Holeyland Wildlife Management Area, on the east by U.S. Highway 27, on the south by WCA-3A and on the north by the Talisman reservation lands. This STA includes the construction of inflow pump stations G-370 and G-372, gated spillways G-371 and G-373, supply canal, STA Works, canal widening and new bridges on U.S. Highway 27.

LEGEND

-  Road
-  Levee
-  Canal
-  County Line
-  Pump Station
-  Spillway
-  Flow Direction

Frequently Asked Questions

Q What is the ECP?

A The Everglades Construction Project, often abbreviated as "ECP," forms the foundation for the largest ecosystem restoration program in the history of Florida, and possibly the nation. The ECP is composed of 12 inter-related construction projects located between Lake Okeechobee and the Everglades. The cornerstone of the ECP is six large constructed wetlands totaling over 47,000 acres. These stormwater treatment areas, commonly referred to as STAs, will use naturally occurring biological processes to reduce the levels of phosphorus that enter the Everglades to an interim goal of 50 parts per billion (ppb).

Q Why is the South Florida Water Management District building the ECP?

A For more than 25 years the South Florida Water Management District has been investigating ways to restore and protect the remaining Everglades ecosystem. Key objectives of the restoration program are:

- a) to improve the quality of water entering the Everglades,
- b) to improve the volume, timing and distribution of water entering the Everglades,
- c) to increase the spatial extent of Everglades wetland communities,
- d) to reduce the presence of exotic plant species in the Everglades.

The scope and timeframes of the comprehensive ECP were incorporated into the 1994 Everglades Forever Act, which recognized that constructed wetlands are the best available means to achieve the interim water quality goals of Everglades restoration.

Q What is the time frame for the ECP?

A The conceptual design for the ECP was completed in 1994, and final design was completed for most of the ECP components by 1997. Land acquisition began in 1994 and continued through 2001. Construction began in 1997 and the last of the STAs will be complete in October 2003. The first STA constructed, STA 6 Section 1, is located in southeastern Hendry County and was completed in October 1997. Other ancillary construction will continue through 2006. Operation and maintenance of the STAs and other features of the ECP will commence upon completion of the individual projects.

Q How is the ECP funded?

A A variety of funding sources were designated by the 1994 Everglades Forever Act for the ECP, including agricultural privilege taxes, ad valorem property taxes, state land funds, federal funds, excess revenues from Alligator Alley tolls, and other environmental mitigation funds.

Q Who is working on the Everglades Construction Project?

A The District is the primary agency responsible for the design, land acquisition, construction, operation and maintenance of the ECP. The District utilized in-house staff and engineering consulting firms to prepare the designs, while in-house staff managed the land acquisition. Numerous contractors with experience in the construction of large public works have built the projects, and a combination of in-house staff and consulting firms have provided construction management. Other agencies have important roles in the ECP. The U.S. Army Corps of Engineers has been authorized by federal law to construct STA-1E. The Corps also participated in the Programmatic Environmental Impact Statement and issued the federal construction permit in 1997. The Florida Department of Environmental Protection is providing technical support and is responsible for the majority of state construction and operating permits. Other state and federal agencies have provided support and assistance throughout the design of the project. In addition, members of the public, environmental groups and agricultural interests have contributed valuable insight and guidance throughout the implementation of the ECP.

Q Will the ECP alone restore the Everglades?

A No, while the ECP will accomplish many interim restoration objectives, it alone cannot achieve all the goals of Everglades restoration. Several other activities are currently underway that will contribute to the overall restoration of the Everglades ecosystem. Research on the ecologic and hydrologic needs of the Everglades will establish long-term water quality and quantity levels required to restore and protect the ecosystem. Once these desirable levels are established, additional projects will be implemented to ensure that all waters that discharge into the Everglades will achieve the targets for phosphorus and other pollutants.

Q What is the relationship between the ECP and the EAA Best Management Practices?

A About half of the water entering the STAs will be stormwater runoff from 505,000 acres of farmland in the Everglades Agricultural Area, located between Lake Okeechobee and the Everglades. EAA farmers have implemented a variety of Best Management Practices, or BMPs, to reduce the levels of phosphorus coming off their farms. The main BMPs include efficient fertilizer application, control of erosion and sediment, and effective stormwater pumping operations. Since 1994, the EAA BMP program has been successful in reducing phosphorus loads to the Everglades.

Q What is Phase 2, and what technologies will be used in conjunction with the ECP to meet the long-term water quality standards?

A Research currently under way is focusing on establishing the long-term phosphorus levels that will prevent adverse impacts to the Everglades ecosystem. This long-term level will no doubt be less than 50 ppb, and may be in the range of 10-20 ppb. For additional information, see the Advanced Treatment Technologies brochure.

Q What is the relationship between the ECP and the Comprehensive Everglades Restoration Plan (CERP)?

A The ECP is the first major step in Everglades restoration. The project was mandated in the Everglades Forever Act, created and passed by the Florida Legislature in 1994. It is primarily composed of six Stormwater Treatment Areas. Created through federal legislation in 1948, the Central and Southern Florida Project, referred to as the C&SF Project, is an extensive network of canals, water conservation areas, pump stations and water control structures. In recognition that the C&SF Project created unintentional adverse environmental impacts, the state requested Congress in 1992 to have the Corps "restudy" the C&SF Project and evaluate alternatives that would better achieve the environmental restoration and protection goals of south Florida. The Corps has completed the restudy plan, with significant public input, and on July 1, 1999, submitted the plan to the U.S. Congress. For more information on this Plan (CERP) visit the web page maintained by the U.S. Army Corps of Engineers. <http://www.evergladesplan.org>



sfwmd.gov

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406
561-686-8800 • FL WATS 800-432-2045
www.sfwmd.gov

MAILING ADDRESS: P.O. Box 24680
West Palm Beach, FL 33416-4680

